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Vol. XXXVIII No. 7

ALBANY MEDICAL ANNALS

Journal of the Alumni Association of the
Albany Medical College

JULY, 1917

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Ασφαλὲς καὶ ἔμπεδον ἔστω το σὸν ἔδος. Ἐκ σκότου μὲν ἔξαγε φάος, ἐκ δὲ πάθους ἀναψυχήν.

ALBANY MEDICAL ANNALS

Journal of the Alumni Association of the Albany Medical College

ALUMNI COMMITTEE

A. VANDER VEER, M. D. W. G. TUCKER, M. D. ANDREW MACFARLANE, M. D

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J. MONTGOMERY MOSHER, M. D.

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PREPARE THE BABIES FOR HOT WEATHER.—During the month of June it is not a bad plan for the physician to take mental "stock" of the babies under his care, especially such as are bottle-fed, with the general idea of recommending such treatment as will tone up and vitalize those whose nutrition may be below par, so that they may enter the trying summer months in the best possible condition to ward off or withstand the depressing influences of extreme heat or the prostrating effects of the diarrheal disorders of the heated term.

Careful attention to feeding is, of course, a *sine qua non* and the details of the infant's nourishment should be carefully investigated and regulated. But this is not all. Many

(Continued on page iii)

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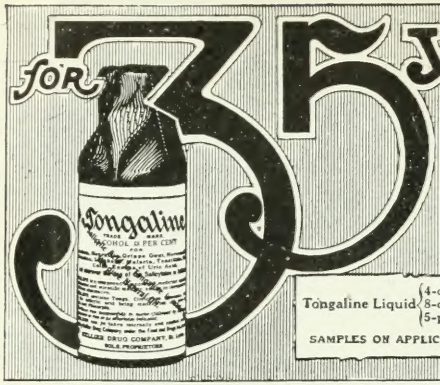
Publisher's Department

(Continued from page ii)

bottle-fed babies are below standard from a hematologic standpoint. The marasmic anemic baby deserves special attention in the way of building up and restoring a circulating fluid which is deficient in red cells and hemoglobin. In the entire Materia Medica there can be found no direct hematic quite as suitable for infants and young children as Pepto-Mangan (Gude). In addition to its distinctly pleasant taste, this hemic tonic is entirely devoid of irritant properties and never disturbs the digestion of the most feeble infant. Being free from astringent action, it does not induce constipation. A few weeks' treatment with appropriate doses of Pepto-Mangan very frequently establishes sufficient resisting power to enable the baby to pass through the hot summer without serious trouble, gastro-intestinal or otherwise.



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Publisher's Department

HYPODERMIC MEDICATION.—Hypodermic medication usually means emergency medication. When the occasion for it arrives, the physician, if he is to employ a tablet solution, is fortunate if he has tablets upon which he can depend. The failure of the tablet is his failure—he cannot shift the burden of responsibility. And tablets for hypodermic use, to be reliable, must possess a number of important qualifications. They must be true to label; they must be active; they must contain a definite amount of medicament; they must be soluble.

These thoughts were vividly impressed upon the mind of the writer upon the occasion of a recent visit to the hypodermic-tablet department of Parke, Davis & Co. Here we see hypodermic-tablet manufacture reduced to a science. Here we find tablet-making facilities that exist probably nowhere else in the world. The equipment is complete to the last degree. The department is spacious, light, airy, clean. It is supervised by an expert who has specialized for years in this branch of manufacturing pharmacy and who has selected his assistants with discrimination. Every worker is an adept. Every hand is schooled to its task.

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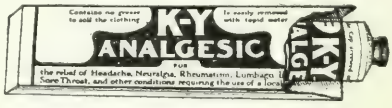

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VOL. XXXVIII JULY, 1917 No. 7

ALBANY MEDICAL ANNALS

Original Communications

FOLLOWING TRAILS.

Read at the Commencement Exercises of the Albany College of Pharmacy, Chancellors Hall, Albany, N. Y., May 1, 1917.

BY ALBERT VANDER VEER, M. D.,
Albany, New York.

Mr. Chairman, Members of the Board of Trustees and of the Faculty, the Graduating Class, Ladies and Gentlemen:

There is much earnest discussion at present in Florida regarding the opening of an old Spanish trail from the Eastern coast on through the Western uplands into the Southern states and leading to the far West. From an historic point of view this long-forgotten trail may prove of great value.

It must be recognized that the civilization of this great Western hemisphere really began in Florida, and, in reading the history of the state, one's curiosity is stirred to know how they overcame the swamps and broad rivers in their travels. The numerous lakes must have been of some help, as they could use their water craft in crossing, and in this there was unity of purpose, for they were compelled to seek the lesser fords and narrowest points of running streams. In considering the recent construction of a beautiful modern bridge across the St. Mary's river, this subject becomes even more interesting, and one must not forget that the principal river, the St. John's, as well as others, have their origin in the extreme Southern portion of the country, the St. John's flowing North, to Jacksonville, for over two hundred miles, then, turning suddenly, flows directly East for twenty miles, to empty into the Atlantic Ocean.

So certain were the original discoverers in their course that they kept far enough to the West and North to "make Tallahassee the central point of this trail."

There is still another trail, much nearer home, in this state, through the Adirondacks, from Plattsburg to Lake Ontario, which is fast being lost in correct location, and a study of which may be of great interest and value to those who are to know more in the near future of this great recreation resort. These, and still other trails, will be referred to later.

When I received, from Dr. Tucker, and his associates—my friends for many years—an invitation, "to deliver the address on this occasion," I accepted with heartfelt thanks, and my thoughts seem since to have centered on a comparison of the different stages passed in my professional career, having a bearing upon the profession of pharmacy, so well represented to-day in the exceedingly good work done by the Albany College of Pharmacy.

In referring to my own mental trail my mind seemed to dwell, first, upon a definition of apothecary, druggist and pharmacist, a question that has been asked me several times during the past few years.

Webster gives the following definitions:

Apothecary: One who prepares and sells drugs or compounds for medical purposes. (In England an apothecary is one of a class of privileged practitioners—a kind of sub-physician. The surgeon apothecary is the ordinary family medical attendant. One who sells drugs and makes up prescriptions is now commonly called in England a druggist or a pharmaceutical chemist. I may say here that when I last visited England there was yet quite a bit of prescribing over the counter, but which was gradually being eliminated.)

Druggist: One who deals in drugs; especially one who buys and sells drugs without compounding them; also a pharmaceutist or apothecary. The same person often carries on the business of the apothecary and druggist.

Pharmacist: One skilled in pharmacy; a pharmaceutist; a druggist.

Dunglison, Medical Dictionary says:

Apothecary: Pharmaceutist, pharmacist, druggist. In every country except Great Britain apothecary means one who sells drugs, makes up prescriptions, etc., a chemist; in addition to those offices, which, indeed, they rarely exercise, except in the case of their own patients, the apothecaries in England form a privileged class of practitioners—a kind of sub-physician.

Druggist: One who sells drugs; apothecary.

Pharmacist: Apothecary; one skilled in pharmacy.

Pharmacy: Art, which teaches the knowledge, choice, preservation, preparation and conservation of medicines. It was formerly divided into Galenical and chymical. The former, called after Galen, embraced the operations to which medicines were subjected without chemistry; the latter, chymical pharmacy or pharmaceutic chymistry, pharmacochymia — (phar-ma-co-chymia), comprise the preparation of medicine founded on chemical action of their principles.

Pharmacy is also used in the sense of apothecary shop or drug store, while the New York State Board of Pharmacy says of pharmacy that where not otherwise limited it means the place registered by the board in which drugs, chemicals, medicines, prescriptions or poisons are compounded, dispensed or retailed. Surely, there is merit in considering a profession so well grounded as to take us back to the days of Galen!

What shall we say then as to these various definitions in their application? For all purposes in this paper I shall speak individually of the apothecary, druggist and pharmacist. So much has come under my observation, during a period of more than three score years, I feel I am justified in using this somewhat comprehensive classification. As an item of interest let me state that in the original Faculty of the Albany Medical College there was established a department of Chemistry and Pharmacy and a professor appointed.

During the past decade we have been hearing much regarding scientific precision in medicine and pharmacy, and upon which I must dwell at times in this address.

As you may know, Experimental Pharmacology and Physiological Chemistry is part of the instruction given in our medical colleges.

I may not follow this old mental trail of mine with positive exactness, but I am sure to gather sufficient data to make the comparison between then and now of value. To stimulate your interest permit me to show you, as an object lesson, some of our medical books of centuries past, containing all that was then known upon the use of drugs and their manner of preparation. When these books were written the science of medicine and pharmacy was in its infancy.

In my early days the country store yielded much to the credit of the old-time apothecary, and yet was very far from being precise. Here, for a moment, let me refer to the apothecary side of this useful institution.

In my mind I see there the pink and senna of my early supposed wormy intestinal tract, so near the package of the unprotected genuine salt codfish that there was a joyous mingling of unctuous tastes and odors. Then there was the choice drawer of quassia and pulverized Peruvian bark, of which one taste was enough. The delightful rhubarb was not too far from its associate powdered jalap, their nauseating tastes mingling now and then; and then that appetizing bottle of raw castor oil, that stood in one corner of the window through summer sunshine and winter frost. One can only refer to the delicious aloes, scammony gamboge, ipecac, squills and like efficient drugs, often kept with more of an imaginary line of separation than reality.

Then the ever present line of bottles of standard preparations, such as cod liver oil, syrup of wild cherry bark, syrup of sarsaparilla, syrup of tolu, and many such specimens that neither time, season nor flies could prevent from being sold. Then the soothing way in which the merchant of silks and calicoes, of eggs and glass ware, of seeds and candies, would dilate upon this or that patent medicine, carefully removing the outside wrapper, if presenting too much of the appearance of age. Yet, again, the perfume of bergamot, lavender, fennel and like associate drugs; the volatile oils not to be overlooked; and, not to be forgotten, the asafetida and valerian.

Another reminder of the country store, as first aid in sickness and accident, was the hanging from the ceiling of arnica, boneset, catnip, peppers of all sorts, roots or barks for making

herb tea, soothing lotions, or expectorant cough mixtures. No matter if several minutes were required to shake the accumulated dust from the tobacco and snuff box shelf below, or the soot from the leaking stovepipe or chimney above to clean that offered for sale. And how delightful was the fragrance from the open orange box and fruits in their season!

All of this was in those early days when trails in every walk in life were being blazed, and the source of much gratitude on the part of the people thus served. God bless, and keep green in our memories, the records made in helping one another in the early struggles in civilizing this great country!

On how many occasions were joy and comfort brought to the homes of the early frontier settlers.

Just here let me emphasize a period when my mental trail had but a litle more than a decade to its credit. In our progressive Mohawk Valley village there was a well-established drug store. It is true the druggist—and just here would be my introduction of the druggist—mingled with his trade all kinds of paints, varnishes, puttys, some hardware and crockery, but on one side of the store were the officinal drugs and patent medicines of the day.

I must have been developing the germ of medicine at that time for my curiosity seemed to have been such he was often good enough to answer my questions and in such a way as to command my confidence and affection, also, in some indescribable manner, to acquaint me with the arrival—when springtime sunshine had cleared a suitable space of dry earth—of an invoice of choice, fine marbles. It is neither the time nor place for me to refer to the added cares such an announcement brought my dear parents.

This druggist was my boyhood friend and never, in after life, did I forget his many kindnesses. There may have been a feeling of reciprocity, for, between school hours he could always rely upon me to perform any errand that might be needed at that particular time. I was not infrequently the go-between 'twixt him and some unfortunate customer who had bought the wrong article, particularly after tasting and wishing it exchanged. This exceptionally good, careful and precise druggist always

remained my friend, and after the age of seventy became my loyal patient, though separated many miles from each other.

School years past and my next recollection of the work of the apothecary, or, to be more precise, the pharmacist, was my initiation, as a medical student, in the office of my preceptor, into the art of making pills. I cannot quite call to mind the names of each drug used, but have yet a very impressive remembrance of the dust, and sickening taste, as I attempted to pulverize, in the mortar, Barbadoes aloes with gamboge—pil hydrarg—and, lastly, enough Castile soap to form a mass that, when rolled out into a pencil-shaped rod, could be properly divided into the required number of pills. Coating of a pill was quite unknown, but followed soon after with such preparations as you are now familiar; which has made the administration of medicine in this form so much more agreeable. I must not omit the joy that came to our office when we were introduced to the art of preparing silver-coated pills.

Just here I wish to emphasize the great benefit to the medical student of that period, of the knowledge he acquired of the various drugs, in the preparation of pills, the making of powders, of the tinctures, and syrups; the spreading of adhesive plasters, the preparation of enemas, as well as visiting patients with his preceptor, from time to time, the latter telling him of the family history, symptoms, treatment, and the effect of the remedies he had prepared.

Here, I regret to say, that the days of the preceptor's advice and interest in the medical student have passed.

One great reason for my accepting this invitation to be with you on this occasion is the opportunity it affords me in being with up to date workers, of which Albany has just reason to be exceedingly proud.

My observations carry me back to the early life of the Normal School, then the College, and, now, the State Teachers' College. In all its history no one man had greater influence in moulding its success than Professor Samuel B. Woolworth, who later served for so many years as Librarian and Secretary of the State Board of Regents. For years he was my friend, and his example of persevering industry was most impressive. He be-

longed to a type of men such as organized the Albany Law School and brought that institution to deserved success.

And yet another illustration was that body of teachers, who, for so many years, controlled the destinies of the Albany Medical College, and brought it up to that high grade of instruction and deserving success, that, when the medical colleges of this country were classified, it was promptly rated in Class A.

Again, in the hospitals of this city, we cannot overlook the great benevolent contributions made to its charities by such broad-minded and far-seeing citizens as constitute the Trustees and Faculty of this College of Pharmacy, the founders of the Medical Department of the State Library, of the Albany Institute and Historical and Art Society, and many other like institutions.

The local and state charities have profited by the efforts of this same class of altruistic workers; therefore, I must be permitted to repeat that I love to mingle with such men, and, when, in 1881, through the efforts of your faithful Dean, a charter was procured for the establishment of the Albany College of Pharmacy, I have ever since watched its career with keenest interest and pride.

I do not come before you to-day with any suggestions of a change in the method of instruction, on the part of the teachers, or lessening the requirements in preparation of the student. Coming, as I do, from an atmosphere of alertness, regarding the preliminary and professional schools of this state, you may have suspected I would bear you a message of concentration and shortening of your work. Not so; we are pleased with your classics and we feel you stand ready to grasp any point that will permit of yet higher scientific attainments.

One by one I have seen the so-called drug departments of our country cross road stores forced to abandon their ill placed distribution of drugs for the medical relief of suffering humanity. The villages have been able to establish a centre of medical supplies, with aseptic dressings, and many of the needed surgical mechanical appliances. Although it may have the soda fountain and tobacco element very prominently, yet, with the coming of the auto, the farmer, the plain workman in the many walks of life, and their families, can hie away to the drug store, that in

every way is supplied with the best and purest of fresh drugs, and may seek a pharmacist deemed competent by law to dispense them, while alongside of all this there yet mingles a community of interest.

Emerging from all this to which I have so briefly referred, came the advanced physician who kept his own drugs—this a little later—partly due to his busy life, and no medical student registering with him he began to buy many drugs, in the form of tinctures, fluid extracts, sugar and gelatine-coated pills. This was largely brought about by the development in this country of reliable chemists and druggists manufacturing in large quantities goods which met the approbation of retail druggists and physicians. In the cities there was introduced what were known as the up to date pharmacists.

I well remember, in 1866, forming the acquaintance of one whom I learned to admire for his great knowledge of drugs and his lovely, quiet, charming disposition. About this time there was a rapid development in the number of alkaloids; the group known as the bromides was exploited; chloral, paraldehyde and a vast number of new drugs were presented. Such was the increase that a medical journal was started called "New Remedies." A like department to this day is yet maintained in some of our leading medical journals. Also "the Journal of Pharmacology and Experimental Therapeutics" and many others were inaugurated.

To drop in occasionally and chat with my friend was a great comfort. He gave little encouragement to proprietary and patent medicines but met the call for such preparations in a manly manner. He was straightforward in all his dealings. His was a genuine drug store, and there were to be found all drugs that the medical literature of the day demanded. If, in his studies, investigations, or experiments, he discovered some combination that was efficient, or palatable, he did not resort to advertising, but, in a gentle way, it became known to the profession. He was a gentleman and manly in every respect; no substituting one drug for another would answer for him. No adulteration or short weight would he tolerate. If the drug called for was not in stock the physician was soon made aware of the fact and

haste made in procuring what was prescribed; however, I fancy such a condition seldom existed and that few drug stores accumulated such a large number of drugs that, really, only met a trial use. This beloved pharmacist kept his store first on the corner of Green and Division streets, then in South Pearl street, and, finally on the corner of South Pearl and Plain streets.

His name was Louis Sautter.

He was born in Germany in 1832 and educated in an atmosphere of experimental and scientific chemistry, for which that country has become justly recognized and endorsed. He came to this country in 1854 and for forty-three years was respected as a practicing pharmacist, widely known in this state.

Many stories were told of his being able to fill prescriptions coming from abroad and elsewhere, and which brought him a well-earned reputation as a man of science. On one occasion filling a prescription written in French, and making a translation, brought him, for his lifetime, the friendship and support of the leading family physician of Albany.

When the use of tablets first claimed attention, and I might say here that Dr. Fuller, the inventor, and introducer of this manner of compounding drugs, had but a short time previously graduated from the Albany Medical College, this druggist did not criticise in any unfair manner, but suggested that great care should be exercised in the use of tinctures, such as belladonna, aconite, digitalis and like drugs. Time proved his observations correct. Albany has reason to be proud of many of its apothecaries, druggists and pharmacists, but I fancy no one has ever exceeded Louis Sautter's worth or the respect rendered him by everyone of his time.

Referring to the old-time Peruvian bark, prepared as a powder, like its vile associate, jalap, which in my early days was prescribed in teaspoonful doses, mixed with old-fashioned New Orleans molasses, it was about as severe as any medicine offered in testing the courage of the patient. It was much used in the treatment of ague and fevers: intermittent fever—and I must be permitted to relate an incident in my own career.

At the time the Erie Canal was being enlarged people living throughout the Mohawk Valley were great sufferers from this

disease, and every member in my father's family was attacked some time during the season. We did not then understand the mosquito as we do to-day, but in the turning of the ground many little pools of water were left as breeding places for these troublesome prowlers. In due time I had my chills, the faithful old family physician was called, and, after preliminary preparation, six powders of Peruvian bark were left to be administered. My dear mother gave me two, and, as I had always retained her confidence, she left me to take the rest. Being alone in my room for the day, gazing at the powders and molasses, temptation overcame me, and out of the window they went. I had no more chills and my recovery was just what my parents expected from the treatment of their infallible family physician.

Those were the blessed days when entire confidence in their trusted doctor brought its reward.

It was sometime before the disobedience on my part was discovered, then only as the cleaning up process about the house took place was the medicine found and traced as mine. There followed a confession, but, in view of my having made so good a recovery, no punishment resulted, aside from some strong comments on the part of other members of the family, who, although taking more in quantity of the detested bark than I, made no surer escape.

Later, when beginning the study of medicine, my mental trail came to the department of therapeutics, that is the understanding of the uses and doses of medicine, and the peculiarity of patients. A more careful consideration of my own case brought me in contact with the idiosyncrasy of the individual, which has been referred to in such a delightful manner by Oliver Wendell Holmes in his essay on "Currents and Counter-Currents in Medical Science."

Thus I discovered that my own system was peculiarly susceptible to drugs. The small dose of Peruvian bark I had taken was sufficient, being all the aid my system required. In all my years of practice I have never failed to respect the opinion of a patient who stated they could not take certain drugs, nor of any drug except in small doses.

Peruvian bark, as my audience well understands, is quinine

in its various forms, and let me here refer to one of our earliest writers in medicine, Peracelsus.

Some years ago, in preparing a paper on "The History of Surgery," for the American Encyclopedia, I was surprised to note that Paracelsus—a prolific writer on medicine in the 16th century—would to-day have been claimed as a pharmacist, for it was he, I quote from a very recent volume, "The Growth of Medicine," by Buck, that "Adolph Gubler, of Paris, credits with the distinction of having been the first physician to give an impetus to the movement which had for its object the application of chemistry to the perfection of medicinal preparations. He also maintained that Paracelsus should be looked upon as, in a large degree, the originator of specific remedies, and that he is justly entitled to the distinction of having been the first publicly to announce the "quintessences"—that is the active principles (vegetable alkaloids)—of drugs. According to this claim it is understood that Paracelsus taught that each drug contained a specially active elementary body, which it was possible to extract as a separate substance."

In November, 1896, it was my pleasure, as a delegate from the United States to the 2d Pan-American Medical Congress, held in Mexico City, to witness much that the then, Diaz government was doing in developing the native medicinal plants of that great country. In a well-constructed building—part of their educational system, of which President Diaz and his wife were justly proud—and of which they knew much—was the State Laboratory, in which every known medicinal plant of that country was classified as to its location, growth, whether the leaf, bark, blossom or root was to be used; and then the result of preparation, in the form of infusion, tincture, solid or fluid extract, crude powder, or otherwise, finally the alkaloids, was exhibited in variously coated pills, or tablets, the most exquisite display I have ever seen.

My observations in developing my mental trail, in visiting many countries, leaves this impression: That the English and Italians excel in gross anatomy, the Germans in bacteriology and pathology, the French in the beauty of their medicinal preparations, but, for general use of all kinds of drugs, there is no

country that can equal our own, and, just here is a point of responsibility for the pharmacist of to-day.

In our travels in a foreign country we are made very happy in noting the respect and confidence reposed in our American pharmaceutical products. I have little sympathy with the present graduate in medicine who asserts he wishes he could have entered the ranks of the profession thirty, or more years ago, so much having been accomplished since then in new discoveries. My reply is that there are yet a vast number of unsolved problems and the field is large and waiting to yield wonderful results, if hard work is only continued in laboratory experiments and investigations. I fear it will not be done by a country that has forgotten itself as has Mexico. I often wonder what may be the present condition of that splendid laboratory we admired so much at one time.

The old Spanish trail has not been forgotten. Tampa and St. Augustine to-day are thoroughly alive and glory in the future prospects awaiting the development of the Dixie Highway, the route destined—while full of many landmarks of the old trail—to establish along its lines new points of interest, indicating the great progress in the understanding of this beautiful land of flowers, by the use of the auto, and for which every facility is being offered. But a year or two more and over brick, asphalt, shell and concrete roads you will be able to leave Miami, skirting the Atlantic, and skimming over the Everglades, pass through the enchanting winter resorts, now becoming so approachable for those of high and low degree in the scale of finances. Reaching that wonderful historic spot, New Smyrna, we stop for a moment to consider the splendid result of pluck and energy known as the improved automobile highway, sixty-three miles around the triangle formed by the cities of New Smyrna, Daytona and De Land, being known as the "Million dollar automobile route." From Daytona you pass on to historic St. Augustine and Jacksonville, or, from De Land you follow on to one of the old crossings of the famous St. John's river. No longer do you use the ancient ferry, but pass over well-constructed bridges and strike the Dixie Highway at Eustis and Mt. Dora, as it comes up from Tampa along the West coast.

This is the land of spouting springs, of lakes and streams forming the origin of one of the few rivers running North, and which must have been of great value to the early discoverers.

Florida was discovered by the Cabots, father and son, in 1497. In 1512 Jean Ponce de Leon, of whom we hear in every part of the state something about his great search for the fountain which would restore the aged to immortal youth, rediscovered the land of flowers.

In April, 1512, De Leon landed at what is now known as St. Augustine, and began his fruitless efforts. So great and impressive are the wonderful springs of Florida that from that day to this whosoever visits this peninsula is struck with the traditions that exist, coming from the aborigines, of the healing power of its various waters. And there is surely much to be said in favor of the beneficial effect of the internal use and bathing in the waters of these springs. Near St. Augustine you are shown the identical spring used by De Leon and as you ascend the beautiful St. John's, some 190 miles, you come to a little stream leading to the famous De Leon spring, a few miles from De Land. It is visited by auto travelers in great numbers, and no doubt the delightful bathing afforded is of value. Here the seminoles gathered and treated their sick. The outflow is estimated at thirty-six million gallons in twenty-four hours. There are many other smaller, and much larger springs in this section of Florida, with water so pure that the drinking thereof is a pleasure, and some in which the medicinal taste is such as to require some effort to enjoy.

It is well known that the earnest pharmacist must be well acquainted with medicinal springs, and I feel to say that we bestow a worthy tribute to the memory of Ponce de Leon in referring to his search, of which so much has been written. In so doing we unintentionally aid in marking out our old Spanish trail.

One great important improvement is the recently constructed bridge across the St. Mary's river, where, for centuries, has been located Kohler's Ferry.

On February 7th, 1917, a very large assembly of people interested in Florida good roads, and the development of the South,

comprised of many tourists from every part of the Union, gathered to take part in the exercises pertaining to the celebration marking a shorter route into Florida, and bringing the states closer together. For weeks and months there had been carried by the ferry an average of fifty cars daily. The bridge marked the end of troublesome tolls. When all was ended many, many auto clubs and the visitors had been informed of fine roads, instead of sandy, muddy clay, and autoing increased largely.

And now from the ancient city of Pensacola comes the branch good road reuniting the Dixie Highway and enthusing with new life, the states of Georgia, Alabama, Tennessee, Kentucky, and others of the South, on its Westward march. From Washington on to the Pacific coast there links in a new companion, the wondrous Lincoln Highway, and this, together with the great Adirondack scenic highway are observed as our more modern ground trails. And now what about the trail of the pharmacist—its past, present and future?

The past is a factor that affords great encouragement; the present is one full of richness in the assimilation of elegant pharmaceutical preparations, used in the scientific treatment of human ills; the future of immense study and realistic value to you young men. In the exercise of your skill what will be the landmarks on your life's trail? May I, from many years of observation, present some thoughts that come to me as we are gathered here?

The *DeLand Daily News,* under the heading "Advertisers rates," has one clause; "Restrictions: No liquor, Safety Pills, Weak Men, Doubtful Investments, Clairvoyant, or other questionable advertising, will be accepted or run at any price."

What an excellent guide for the apothecary, druggist or pharmacist! How much more is required regarding firmness in the determination to do that which is right than ever comes to the physician!

Solicitations, accompanied by the keenest, and most earnest of arguments, will be offered you to do that which lies in your power, yet which you know to be wrong and wholly evil. Honesty of purpose, strict integrity in performance of one's duty,

will, when the shadows of ending life present, bring the comfort and joy that settles in upon us in no other way.

Let your preparation be thorough and no relaxation when on duty. There is always something to investigate more completely.

Truth, that priceless virtue, brings its rewards in the knowledge of having dealt in drugs pure and unadulterated, and as called for by the anxious, watchful physician. The laws of to-day keep a fairly correct tab on drugs that are known to become inert with age, and the stamping of original packages is not to be lost sight of.

On this subject I must emphasize the fear one experiences in noting the frequent changes in ownership of certain drug stores. One can call to mind instances where such has happened and it was promptly shown that the medicines were of no value, upon assay, and prescriptions filled were practically inert.

Again, I recall the dreadful anxiety of mind of a dear old doctor of this city, who, when sent for hurriedly, having been told that a teaspoonful of the medicine had been given, when only five drops was intended, discovered, upon entering the house, where all was fear and consternation, that the little girl exhibited no serious symptoms. Proper antidotes and treatment were immediately employed and as the patient soon presented evidence of recovery, all was joy and gladness.

The doctor, feeling desirous of greater surety, regarding the situation, took the bottle of medicine, had it examined by a competent chemist, and received the report that it was absolutely inert.

Non-recovery of patients is a very striking illustration of this kind.

This is a truth, that the honest physician, having treated a patient for such a length of time, when improvement ought to have presented, and the contrary being the case, doubles his efforts in investigating further to see if he has made a mistake in his diagnosis, and finding no error does not overlook as to the remedies being reliable.

It is very impressive, on visiting the laboratories of our manu-

facturing chemists, to note the care exercised in labeling and dating their products in order that no mistakes occur.

So it may be said that the active physician or surgeon of to-day derives much comfort in knowing that the pharmacist, who is to put up the prescription he has written, knows all about the dose and preparation, and will observe carefully as to any possible error; therefore, care on the part of the pharmacist is his greatest asset. I am convinced that the honest, true-hearted pharmacist has ever in mind the aid he can render the members of the medical profession. He must be well posted regarding the officinal and unofficinal preparations, as they may be employed in the care of the sick, and in the splendid publications of to-day he has much to aid him.

In the days when abdominal surgery was developing it was considered a wise move for the general practitioner and surgeon to combine their studies, regarding obscure cases, and, by so doing, a more correct opinion was reached. This same course pursued between the members of our profession and the pharmacists, in the use of remedies, will produce like good results. By so doing the pharmacist is more likely to do that which is of mutual benefit—the keeping of an up to date stock of goods, and in sufficient quantity. The pharmacist may accumulate unused material; however, he can minimize this by buying in small quantities, and in exerting his business capacity by making a proper initial charge. The busy doctor is constantly asked by his patients, "where shall I go to have this prescription filled?" Can you criticise him when he has in mind, in his reply, "go to the druggist who considers it his duty to serve the public, and who keeps this thought constantly uppermost." That physician is most fortunate in being cared for by the pharmacist who makes no effort at argument over technicalities but assists in keeping his promises.

If you were to chat with the busy physicians, who are wise enough to get their four or six weeks' rest every summer, and in so doing acquire much knowledge regarding vacation spots, as to what are the strong points to be considered, you would hear them say, "look carefully as to sanitary surroundings, and inspect the drug or drug stores." If the latter represents the best,

it is a great factor in influencing you where to go. The neat appearance of a drug store makes a good impression, and the care exercised in sending out everything in an orderly manner, with efficient directness, commands admiration.

In all that this implies the graduate of to-day has many illustrations of vast importance in the work of the past, for, to excel beyond what has already been accomplished, requires great industry, clear methods, and all that the word system implies.

You will come to trials and tribulations where you will find it difficult to establish a satisfactory trail. To-day the commercial agent representing the wholesale drug firm visits the physician and presents his array of specimens in an exceedingly fascinating manner, yet, with all this, the well educated, well prepared, truthful, honest pharmacist retains his well earned position among his fellow men.

Amidst it all this fact stands out very prominently: Never have our laboratories been better equipped for experimental and research work than at present. There is always before us, whatever our occupation may be, this fact, that by doing a little more, and a little better the things demanded, success is sure to follow.

Among the new positions to be developed in the trail of the pharmacist of to-day is the responsibility he must assume, together with that of the physician, in the control of the use of habit-forming drugs, also in the care of that large per cent of people already in need of such treatment, and in aiding physicians who are to control the amount of the drug which the person, who is in actual need, should be allowed to use.

My experience of many years teaches me that we have not always realized how easily some of our prescriptions have led our patients into the continued use of these drugs. Some two or three years ago, when our present laws went into effect, I was astonished to observe that some five of my old prescriptions had been filled from time to time, and that one, containing nitrate of silver, had been used for so long a time as to cause discoloration of the skin, although the patient had been warned against this possibility.

I am convinced that a large proportion of people using narcotics can be cured, while a certain number should be placed

under the control of physicians appointed for such service, and these, together with the pharmacist, should be permitted to fill such prescriptions as may be needed for the relief of incurable diseases where great suffering exists: Cases where a wounded nerve presents, not having healed properly, or where there is pressure or entanglement of a nerve trunk by some inoperable condition are of such a class. These patients should be examined from time to time and allowed such doses as will grant relief. Our present laws have done great good but something more is needed. In too many of these cases we are dealing with diseased conditions not fully recognized. It is to be hoped that our present Legislature may be able to solve this problem. They are certainly moving in the right direction.

Another important duty coming before the pharmacist of to-day is that of plant culture. In this there is a large field for success.

I have touched upon the remembrances of my observations in relation to my own mental trail. May I inquire as to the monuments you will erect along Lincoln, Dixie, Adirondack and many other trails as evidence of your having done full justice to your excellent pharmaceutical training?

All along these new highways, or trails, will be developed new territory, requiring the services of skilled pharmacists.

RADIUM EFFICIENCY

Read before the Saratoga Springs Medical Association, April 22, 1917.

By DOUGLAS C. MORIARTA, Ph. G., M. D., F. A. C. S.

The use of radium for cancer has been both lauded and condemned by men high in the profession, men eminently fitted, it would seem, to determine its true value, and we should not accept or deny their conclusions without an analysis of the possibilities. When we consider all that is required of a cure for cancer, it is not strange, that opposite opinions are expressed, as they simply reflect the viewpoint of the observer.

To illustrate, I will present some extracts which give the views of research men, and of clinical workers.

"Radium as a cure for cancer is a failure" says the head of

Crocker fund of Columbia University. (*Cincinnati Enquirer,* December 18, 1916.)

"Report radium fails as cure for cancer. George Crocker, special research fund, spends another year in fruitless quest for method to combat the dread disease. Many experiments carried on by investigators." (*N. Y. Telegram,* December 18, 1916.)

"Radium not cancer cure. Result of exhaustive tests on rats, mice and guinea pigs announced." (*Macon, Ga. Telegraph,* December 18, 1916.)

"Finds radium dangerous in cancer cases. Dr. F. C. Wood reports under some conditions it spreads, rather than reduces, growths. Sanctions use only when operations are impossible, and then only under strict limitations." (*New York American,* December 18, 1916.)

"Radium fails as cancer cure, Columbia director reports. Tumors stimulated by small doses, while growths disappearing after use of larger quantities are only quiescent." (*Pittsburg Gazette Times,* December 18, 1916.)

"Cancer tests failure. Dr. Wood reports he is unable to cure animals with radium." (*Columbus, Ohio, Journal,* December 18, 1916.)

"End of radium theory." (*Philadelphia Bulletin,* December 18, 1916.)

Dr. Joseph B. Bissell of New York, in the issue of *Radium,* November 14, says: "The place which radium is to occupy in surgical therapeutics is quite well-defined. Capable observers, whose scientific knowledge and surgical skill are not questioned, have testified to numberless cures in the malignant type of diseases susceptible to its action. Some of the indications for the use of radium are, in cancer as an adjunct to surgery, before and after operation; on parts of the body inaccessible to the knife; in cases where the tumor cannot be excised without danger to life, or where complete removal is impossible, or is not accomplished; in cases which for cosmetic reasons refuse operation; also in incurable cancer to relieve symptoms such as odor, discharge, and pain."

Dr. Keugle of Omaha, in the *Medical Record,* states: "In no case should radium supplant operation, for the greatest degree

of success follows the early and complete removal of all forms of malignant growths. It should be used as an adjunct to surgery, or in operable cases where the patient refuses operation." Dr. Keugle finds it causes the disappearance of rodent ulcer and epitheliomata of the skin, and believes it to be useful in massive doses following operation for cancer. He emphasizes the point that it does not prevent metastases.

Dr. C. Jeff Miller of New Orleans, in the April, 1916, number of *Surgery, Gynecology and Obstetrics,* says: "I have applied radium to malignant areas reappearing in the vaginal vault after hysterectomy in six cases. They were utterly hopeless from a surgical standpoint, and in four, the growth promptly responded to the treatment. This does not prove that radium will cure cancer, as they have not been followed up for a sufficiently extended period. It does prove, however, that cancer of the cervix is profoundly influenced by radium in cases that are hopeless surgically, and the results are far superior to any other remedy I have used. The primary result is often beyond the hopes of the most enthusiastic supporter. Bed-ridden sufferers even, gain a new lease of life, and some have been improved to the extent that surgery might be beneficial when it was originally useless. Its value is being established upon material that is past any surgical relief before radium is used."

In the *Southern Medical Journal,* April, 1916, he further says: "Bleeding and sepsis are the commonest characteristics of advanced uterine cancer, the complications that wear a patient down rapidly and make life a burden. I have used radium in a fairly large series of inoperable cases and failed in only one instance to check the bleeding promptly. I have seen the parametria clear up, the bladder-wall infiltration disappear, the sloughing crater entirely heal over, the pain subside, and all discharge cease, in five hopeless advanced cases of cancer of the cervix. In other cases the results have been negligible, other than controlling the hemorrhage and temporarily retarding the growth."

Drs. Joseph and Louis Ransohof of Cincinnati in an article read before the American Surgical Association, May, 1916, say: "The immediate local results of radium are phenomenal. We have not had a case in which we have not been able to

arrest both the offensive discharge and the hemorrhage in from one to three weeks. The cauliflower-like mass which occasionally fills the vagina seems to melt away. The improvement of the general condition of the patient is astounding. Pain is sometimes relieved within a few days of the first application. We have now, after eight months of work, eight cases clinically free from all manifestation of cancer. With one exception, these cases were inoperable, and five had previously submitted to a palliative operation. One borderline case, where an operation might have been done, is clinically cured.

Dr. Louis Ransohof, in the *Lancet Clinic,* March 6, 1915, reports three inoperable cases of sarcoma clinically cured by radium.

Dr. D. Bryson Delavan of New York (*Medical Record,* July 8, 1916), says: "In the treatment of non-malignant intra-laryngeal growths, many highly interesting results have been obtained. Tumors of various histological structure have disappeared, and in a number of cases with complete restoration of the singing voice."

Dr. Edward B. Heckel of Pittsburg, Pa., in an article read before the Ophthalmological Society in Washington, May 9, 1916, says: "The value of radium, if used in sufficient amount in malignant disease of the orbit, has been in my opinion, demonstrated."

Dr. Henry Schmitz of Chicago (*Surgery, Gynaecology and Obstetrics,* August, 1916), states: "The results of radium treatment differ, depending (1) on the organ involved, and (2) on the stage of the disease. The prognosis is best in vescicle, almost equally favorable in uterine and vaginal, and not so favorable, even poor, in rectal carcinomata. The value of the treatment varies, depending upon the operability, inoperability or recurrence of the disease."

Dr. John G. Clark of the University of Pennsylvania, in *Annals of Surgery,* November, 1912, has this to say: "As to radium, I am convinced that it offers the most helpful outlook of any remedy thus far presented in the palliation, and occasionally the curative, treatment of border-line and inoperable cases of cancer. In our series of cases there have been, with two excep-

tions, no disagreeable effects. Fortunately, we have profited by the mistakes of early workers. There is no way of determining which case will be benefited by its use; and there is no doubt that a certain percentage in which carcinomatous growths are not retarded by radiotherapy, indeed it would appear that there is a positive acceleration of growth. That many cases show an astounding improvement and a local cure, cannot be gainsaid. In our series several instances occurred in which the results achieved were so remarkable as to be almost incredible. As a palliative agent, we have never obtained results with any other method that have even approached in beneficence those secured by radium." He also says: "our attitude toward the cervical and fundal growths of cancer in the uterus is diametrically opposite. In border-line cases of cancer of the cervix we invariably employ radium; while in the advanced cases of cancer of the fundus, we invariably perform a hysterectomy."

Russell H. Boggs, M. D., of Pittsburg, says (*Interstate Medical Journal*, vol. 23, No. 5, 1916): "Radium is a useful and valuable agent in the treatment of leukoplakia, which has been very resistant to other forms of treatment."

Dr. Palmer Findley, of Omaha, in the *American Journal of Surgery*, November, 1916, makes this statement: "Certain it is that radium should be given an extended trial, because enough is known of its therapeutic action to justify its use in all cases in which surgery cannot be invoked."

Dr. Dewell Gann, Little Rock, Ark., in the *Medical Council*, August, 1916, says: "It is only fair to say, that, stripped of all extravagant claims, radium is an asset of permanent value to surgery, and an agent for the relief of human suffering. Therefore, may we not dismiss prejudice from our minds, and think for a moment of the carcinomatous nodule surrounding the blood vessel, that cannot be removed with the knife?" He also states that in the treatment of keloid, radium has given him most saitsfactory results, acting almost as a specific. He thinks rodent ulcer is the most amenable to radium treatment of all forms of malignant disease.

Dr. John M. Lee of Rochester, in *Journal of American Institute of Homeopathy*, December, 1916, has this to say: "In many

cases the growths soften, shrink and disappear, without destruction of the normal tissue; and in a short period, sometimes in two weeks, so that the whole process seems incredible, even to the initiated. Until radium was brought into use, tumors of the antrum-highmore and nasal pharynx were incurable. This is also true in sarcoma of the nasal pharynx. They are always fatal without the use of radium; with it, the results are astounding and satisfactory. I have seen some of the most brilliant results in the treatment of inoperable cancer in the cervix uteri; dangerous hemorrhage, excruciating pain, disgustingly foul odors, are often made to disappear almost at once, the tissue becomes soft and yielding, and the cervix assumes its normal appearance. But when the disease extends into the rectum, bladder, and broad ligaments, the treatment is not so satisfactory. Still, the improvement in some of these most pitiable cases is surprising."

Dr. T. C. Kennedy, of Indianapolis, in the *Journal of the Indiana State Medical Association,* March, 1917, says: "We find dangerous hemorrhage in which there is no discoverable pathological lesions, which will yield to a few treatments with radium."

Dr. W. H. B. Aikins of Toronto, in an article reprinted from *American Medicine,* July, 1915, says: "Rodent ulcer is the lesion which of all malignant growths responds best to radium treatment." He also says that vascular growths are more readily affected than the indurated ones. In skin cancer he thinks radium is undoubtedly the most satisfactory agent we have. He further states, "Dr. Abbe of New York was the first to determine the value of radium in exophthalmic goitre. My own clinical observations corroborate this. Radium as a palliative measure, very often relieves pain, controls hemorrhage, lessens offensive discharge and undoubtedly prolongs life."

Frank E. Simpson, of Chicago, in an article in the *Illinois Medical Journal,* May, 1916, takes the position that radium is to be regarded strictly as an adjunct to surgery, and believes that operable cancers should be operated on, though radium may be of great value prior and subsequent to operation. When inoperable cancers are treated with radium, he says "suffering

is minimized and life perhaps prolonged." He believes that cancer of the cervix uteri may be wonderfully relieved symptomatically and occasionally become operable. Relapses may occur, but these have yielded to persistent treatment in his hands. He has had most satisfactory results in the treatment of 20 cases of lupus erithematosis. He believes that epithelioma of the skin yields to radium almost universally, though in an occasional case the growth is resistant to radium.

Dr. Howard Kelly, in the *American Journal of Surgery* of March, 1916, says: "Let me recount briefly some of the radium successes. The story cannot be too often told that radium cures basal-celled epithelioma. Surgery will do this, but think of the mutilation when a broad incision is made, or the risk of return if a small one is made to avoid mutilation. It never replaces surgery in operable cases. In breast cancer its usefulness is in recurrences. I have seen some remarkable results in utterly inoperable cases and in treating nodules fixed to the breast. The best group of cases for the use of radium are the lymph-sarcoma. If it did no more than secure the remarkable results we are constantly witnessing in the disappearance of great tumor masses, and saving the lives of those in imminent danger of choking to death, its value would be inestimable."

Dr. Kelly closes with this statement: "It will do many things we have never been able to do before, although it is by no means a specific except in lymph-sarcoma."

Drs. Kelly and Burnham, in the *Journal of the A. M. A.*, November 27, 1915, make these statements: "There are diverse pathological conditions causing uterine hemorrhage, all benign and all troublesome; and we have found all are remarkable for their ready response to radium therapy. Ray-therapy has succeeded in bringing uterine fibroid and hemorrhage under complete control, without risk to the patient, and without injury to the general health. With radium we have been able to diminish the hemorrhage and cause the disappearance of the fibroid, without causing amenorrhea; so it is possible to affect the tumors and uterus without injury to the ovaries. The brilliancy of our results are equal to radical surgical procedures, and have the advantage of eliminating the danger of operations, also pain

and suffering of post-operative complications. Further, if radium fails we still have the operative possibility to fall back on, and have lost nothing by waiting."

The foregoing are only brief quotations from a few of the many reports, yet they reflect the opinions of all clinical workers with radium, though they do not give you the enthusiasm of these men.

The research man is looking for a cure for cancer and has been disappointed in radium. The clinician is working in another field, and he has found radium often to be of inestimable value to the cancerous victim. While he considers that surgery gives the only or greatest hope in localized cancer, he has also learned that radium is valuable in conjunction with surgery. He has proven its value in some border-line conditions and in some conditions where the patient could not or should not accept the surgical risk. In these instances, radium is the only hope for the victim, and is a particular boon in its relief of pain, control of hemorrhage and odor.

My own experience and conclusions are in accord with those of the men quoted. I have treated with radium, cancers of the skin, of the cervix uteri, of the vaginal-walls post-operative, of the rectum, of the rectum post-operative, of the vagina, rectum and adjoining tissues, of the breast in conjunction with surgery, post-operative nodes of the breast, cancer of the thyroid, of the æsophagus, rodent ulcer, fibroids of the uterus, persistent meterragia without determinable origin, assumed tubercular glands, lupus fatty tumors, granular cervixes, and some calluses that seemed to involve the joint structure.

All my cases of cancer of the uterus, of the vaginal walls, of the rectum, of rodent ulcers and fibroids of the uterus, were desperate, all inoperable, and far-advanced towards a terminal stage, and by one unfamiliar with what radium occasionally does in these conditions, all thought of affording relief would have been abandoned.

In some of these cases the relief was temporary, though remarkable; in a few it was little short of miraculous, and I plead guilty to not having the courage, because of these facts, to tell you about them in detail. To quote Dr. Lee again, "Even the

initiated almost discredit their own observations in what radium does." On the contrary, if one treat all inoperable cases of cancer, regardless of size, character, stage and condition of the growth, there will obviously be many disappointments. Notwithstanding this, we should not be discouraged, but should give to each individual case the only chance for life, at least its prolongation and the relief which may be afforded by using radium.

In closing a paper on this subject, read before the American Gynaecological and Obstetrical Society in September, 1916, I said that "no case of this type is so desperate, and no postoperative condition so hopeless, that radium should not be used with an expectation of the alleviation of the distressing symptoms."

With your indulgence I would like to report briefly four cases which emphasize the force of this statement.

Case 1. Mrs. S., housewife, age 51, was referred to me for a hysterectomy, on account of hemorrhage which had been continuous for over a year. All treatment resorted to, had been without avail. The patient had lost 30 lbs. in weight, was markedly exsanguinated and a general edematous condition was present. Hemoglobin index, 40; red blood count, 3,600,000; albumen and casts in the urine. She was a grave surgical risk, one that the most courageous surgeon would decline. I could not discover any growth. The use of radium was suggested and accepted. After six treatments with radium element, the hemorrhage ceased, to reappear sixteen months later. The radium was again used as before. Ten months have elapsed since the second treatments were given, and there has been no further loss of blood.

Case 2. Mrs. R., Jewess, age 59. Was operated on for uterine hemorrhage at the age of 39. Fourteen years later she commenced to flow again, profusely; this continued irregularly for six years until she came under my care. There was a palpable fibroid at the junction of the cervix with the body of the uterus, four inches in diameter. She was exsanguinated with the concomitant symptoms, cachexia, and shortness of breath, remained in bed most of the time, and had lost 60 lbs. in weight. Hemoglobin 50; red blood count, 3,400,000; an abundance of albumen and casts in the urine; truly an extremely hazardous surgical risk. After four months of intra-uterine application of radium element, the fibroid disappeared, and she has gained in weight and general well-being. Hemorrhage ceased after the third week of treatment. The nephritis is still present.

Case 3. Mrs. C., age 50, came into my service at the hospital in January, 1916. She was an emaciated, worn-out, nervous woman, with a huge

malignant breast that had already commenced to break down; the axilla was full of palpable glands. This poor creature had kept her secret and worked daily for a year, when the pain, odor and discharge compelled her to see her physician. Surgery alone could promise nothing. We amputated the sloughing mass, cleaned out the axilla, and then used radium element externally, moving it over the entire area. The pain stopped almost immediately. There were many post-operative nodes over the field of operation, all of which yielded to treatment with radium. In July she came into Dr. Resseguie's service. Metastases occurred in the right breast. Dr. Resseguie operated, and radium was used as after the first operation. There were no post-operative nodes in the region. Mediastinal metastases became apparent in November and she died, eleven months after the first operation. There was never any post-operative necrosis.

Case 4. Miss S., age 51, seen at the Saratoga hospital through the courtesy of Dr. Humphrey. Present condition: an extremely emaciated, septic, bed-ridden patient; not able to walk or stand; complete procedentia. The uterus, four by six inches; the cervix everted so that it had the appearance of a cauliflower mass, five inches in diameter, with a very foul odor, practically making the ward unendurable for others. Radium element was applied four times at intervals of ten days. The entire condition cleared up as if by magic, the odor and discharge disappeared, and the growth melted away. The cervix assumed its original contour, though somewhat enlarged, and the body of the uterus diminished in size and receded to its normal position in the pelvis. She was sent to the County hospital March 1st, clinically cured.

These four cases are all local patients. The two malignant cases were seen by some of the men present. With these, as with all of my radium cases, there is no statistical value, as the time in all instances has been too short, where there has been a local betterment, even to suggest permanent condition. They do illustrate, however, that radium is of value in hopeless cases, in prolonging life, and in making the tenure of life less miserable. Three of the four cases reported are alive and clinically cured. One died eleven months after her first operation, but most of this time she was quite comfortable and able to be with her family. She died rather suddenly of mediastinal metastases, her principal cause of distress being dyspnoea. How different was this from a death with gradually increasing sepsis from a foul, necrotic, cancerous mass.

Case 1 is apparently well, after two years, doing her work, has regained weight, color and cheerfulness. Of case 2, after one year, the same can be said, though her nephritis continues.

Case 4 is of very recent occurrence, and I have not seen her since she has been in the County House. However, disregarding the future, the results in her case were little short of miraculous.

I have not thought that the technique of the application of radium, *i. e.*, the screening, quantity employed and time of application, would be of interest to you, so have not burdened you with it. If it is, however, I would be glad at another time to give you my experience.

Editorial

> Had poor Sir Brian Newcome's seizure occurred at an earlier period of the autumn, his illness no doubt would have kept him for some months confined at Baden; but as he was pretty nearly the last of Dr. Von Finck's bath patients, and that eminent physician longed to be off to the Residenz, he was pronounced in a fit condition for easy traveling in rather a brief period after his attack, and it was determined to transport him to Mannheim, and thence by water to London and Newcome.
>
> *The Newcomes.* THACKERAY.

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Mental and Nervous Cases in the War.

The National Committee for Mental Hygiene has taken early action toward the prevention and treatment of nervous conditions arising at the front. Profiting by the experience of the other allies an effort is to be made in this country to sift out neuropathic and psychopathic individuals at the time of enlistment. For those who do not reveal nervous conditions and who afterward under the stress of the war develop them, it is planned now to provide a nervous and mental service for the base hospital units. Some information on this subject has recently been received from Dr. Thomas W. Salmon (A. M. C. '99), who has been sent to England and France by the National Committee for Mental Hygiene for the purpose of studying conditions there and the probable need of this feature of the service. Dr. Salmon's first communication shows the relative infrequency of true in-

sanity but emphasizes the demand created by the development of neuroses. On this subject he writes as follows:

"In the first place, I am convinced that we are providing far too few beds for actual war conditions. This is entirely true of Base Hospitals generally, but it is especially true of the accommodations for mental and nervous cases. A British Army Division consists of 40,000 men and has a base hospital of one thousand beds, which can be expanded to twice that number. This ratio is considerably larger than that provided by the United States regulations. I have no doubt that thirty beds will be sufficient at the concentration camps in the United States but in France we shall have to count upon providing more beds and possibly a few more medical officers.

"Dr. Mott thinks it very desirable to emphasize the fact that these special wards are to be for *nervous* cases, for there are very few organic nervous casualties even among the wounded. The neuroses greatly outnumber the strictly mental cases. So, perhaps, it would be better for us to speak of our wards as '*nervous and mental wards*' or '*psychiatric wards.*'

"The extent of these casualties is almost beyond belief. I have not yet had access to the official records but apparently the neuroses constitute one of the most formidable problems of modern war. I shall have innumerable instances showing how ineffective ordinary treatment is in these cases and how much can be accomplished from sufficient treatment by psychiatrists and neurologists when they have early access to their patients and some special facilities.

"The little I have already learned has convinced me of the importance of excluding certain easily recognizable psychiatric types at the time of their enlistment. Dr. Mott, who has had enormous experience here, says that he cannot emphasize this too strongly. These people are certain to go to pieces in the presence of danger or hardship and are not only useless themselves but are also a serious drag upon their comrades and the army in general. Mott believes that no testing methods can detect these individuals but that their exclusion must depend upon the expert clinical judgment of the well-trained psychiatrists and neurologists."

Public Health

Edited by Arthur Sautter, M. D.

Department of Public Safety, Bureau of Health, Albany, N. Y.

Abstract of Vital Statistics, May, 1917.

Compiled by William F. Fullgraff, Registrar.

Deaths.

Consumption	23
Typhoid fever	1
Scarlet fever	0
Measles	4
Whooping cough	0
Diphtheria and croup	0
Grippe	2
Diarrheal diseases	1
Pneumonia	14
Broncho-pneumonia	3
Bright's disease	10
Apoplexy	9
Cancer	12
Accidents and violence	10
Deaths under one year	23
Deaths over seventy years	42
Total deaths	154
Death rate	20.25
Death rate less non-residents	17.19

Deaths in Institutions.

	Non-Res.	Res.
St. Peter's Hospital	3	8
Homeopathic Hospital	4	8
Albany Hospital	11	10
Albany Hospital Camp	1	8
Hospital for Incurables	0	2
Federation of Labor Camp	1	0
Maternity Hospital	0	4
Albany County Hospital	4	4
Penitentiary	0	1
St. Margaret's House	1	0
Childs' Hospital	1	0
Home for the Aged	2	0
Public places	2	4
	30	49

Births	171
Still births	9

Bureau of Communicable Disease.

Cases Reported.

Typhoid fever	6
Scarlet fever	25
Diphtheria and croup	9
Chickenpox	46
Smallpox	3
German measles	106
Measles	193
Whooping-cough	7
Tuberculosis	37
Cerebro-spinal meningitis	1
Septic sore throat	2
Trachoma	2
Mumps	2
Total	439

Number of days quarantine for scarlet fever:
Longest..... 40 Shortest..... 30 Average..... 33 3/9

Number of days quarantine for diphtheria:
Longest..... 28 Shortest..... 8 Average..... 16 4/8

Fumigations:
Houses..... 52 Rooms..... 407

Milk bottles disinfected..... 550

Communicable Disease in Relation to Schools.

	D	S. F.	M.
Public School No. 3	....	1	6
Public School No. 4	2	....	....
Public School No. 5	....	....	5
Public School No. 6	....	....	3
Public School No. 8	....	1	1
Public School No. 10	....	....	1
Public School No. 11	....	....	2
Public School No. 14	....	....	2
Public School No. 16	....	....	2
Public School No. 17	1	....	6
Public School No. 18	....	....	5
Public School No. 20	....	1	....
Public School No. 25	....	....	4
Blessed Sacrament School	....	....	8
St. John's School	....	1	....
St. Joseph's Academy	....	1	13
Lady Help of Christians	....	....	19

St. Patrick's Institute	1	....	....
Cathedral School	....	2	4
St. Ann's School	....	....	2
Miss Quinn's School	....	....	2

Tuberculosis.

Nurse's Report.

Living cases on record May 1, 1917		742
Cases reported:		
By card	34	
Dead cases by certificate	3	
		37
		779
Dead cases previously reported	20	
Dead cases not previously reported	3	
Removed	2	
		25
Living cases on record June 1, 1917		754
Total tuberculosis death certificates		23
Non-resident deaths:		
Albany Hospital Camp	1	
C. F. L. Pavilion	1	
		2
Resident deaths		21

Visits to Cases of Communicable Disease.

Tuberculosis	46
Diphtheria	1
Visits to physicians	12
Investigations	2

Bureau of Pathology.

Bender Laboratory Report on Diphtheria.

Initial positive	14
Initial negative	445
Release positive	10
Release negative	91
Suspicious	3
Total	563

Test of Sputum for Tuberculosis.

Positive	15
Negative	103
Unsatisfactory	1
Total	120

Widal Tests.

Positive	3
Negative	17
Suspicious	2
Total	22

Wasserman tests	181
Milk analyses	163

Bureau of Nuisances.

Complaints made		79
Inspections		89
Plumbing	45	
Sanitary	44	
Reinspections		113
Plumbing	34	
Sanitary	79	

Hearings.

Cases heard before health officer	2

Class of Cases.

Filthy premises	1
Smoke	1

Disposition of Cases.

Abated	2

Bureau of Plumbing, Drainage and Ventilation.

Inspections		161
Old houses	75	
New houses	86	
Permits issued		116
Plumbing	87	
Building	29	
Plans submitted		28
Old buildings	7	
New buildings	21	

Houses tested		23
Peppermint	2	
Water test	21	
Houses examined		26
Re-examined		84
Valid	15	
Without cause	11	

Dead Animal Report.

Horses removed	18
Dogs removed	202
Cats removed	298
Goats removed	1
Total	519

Bureau of Markets and Milk.

Public market inspections	24
Market inspections	21
Fish market inspections	1
Lactometer readings	164
Temperature readings	164
Fat tests	90
Chemical tests	52
Bacterial counts	93
Milk depots inspected	8
Stores inspected	114
Milk cans inspected	240
Dairies inspected	26
Milk houses inspected	26
Cows examined	292
Cows removed	4

Miscellaneous.

Cards posted for communicable disease	193
Cards removed	124
Notices served on schools	439
Notices served on stores and factories	89
Postal card returns sent to doctors	193
Postal card returns received from doctors	156
Inspections and reinspections	212
Work certificates issued to children	22
Vaccinations	156
Cases assigned to health physicians	88
Calls made	167
Garbage collected from first district	bbls. 204
Garbage collected from second district	bbls. 190
Garbage collected from third district	bbls. 146

Hospital and College Notes

Edited by Clarence F. Graham, M. D.

ALBANY MEDICAL COLLEGE.

The following lectures on military subjects have been delivered at the Medical College:

Course in Military Medicine.

April 16—Major Louis H. Gaus, 5 P. M., in amphitheater of Medical School. Subject, "Sanitary Units."

April 23—Colonel William S. Terriberry, M. C. National Guard, 5 P. M., in amphitheater of Medical School. Subject, "The Duties of the Medical Officers in Service."

April 30—Captain Philip C. Hacker, 5 P. M., in amphitheater of Medical School. Subject, "Recruiting Service."

May 7—Dr. Joseph A. Cox, 5 P. M., in amphitheater of Medical School. Subject, "The Plan of Military Instruction of the Clinical Club of Albany, N. Y."

May 14—Dr. J. Lewi Donhauser, 5 P. M., in amphitheater of Medical School. Subject, "Military Surgery."

May 21—Dr. Harold E. Cochrane, 5 P. M., in amphitheater of Medical School. Subject, "The Medical Corps in Field Service."

The following lectures of general interest have been delivered at the Medical College:

Lectures

April 11—Dr. Wheeler P. Davey, of the General Electric Company, Schenectady, spoke at 5 P. M. in the amphitheater of the Medical School. Subject, "The Application of Physics to Medicine."

April 26—Dr. Isaac H. Jones, Instructor in Neuro-Otology, University of Pennsylvania, spoke in the auditorium of the State Education Building at 5 P. M. Subject, "The Value of Routine Examination of the Labyrinth and the Interpretation of Nystagmus," illustrated by moving pictures.

May 3—Dr. Paul D. White, of the Massachusetts General Hospital, Boston, Mass., spoke at 3:30 in the amphitheater of the Medical School. Subject, "Clinical Electrocardiography."

May 3—Dr. White spoke at 8:15 in the Albany Hospital on his "Experiences in the Base Hospitals of France and England."

Medical News

Albany Guild for the Care of the Sick.—Department of Visiting Nursing.—Statistics for May, 1917.—Number of new cases, 126. Classified as follows: Dispensary patients receiving home care, 8; district cases reported by health physicians, 2; charity cases reported by other physicians, 30; moderate income patients, 45; metropolitan patients, 41; old cases still under treatment, 48; total number of cases under nursing care during month, 174. Classification of diseases for the new cases: Medical, 34; surgical, 13; gynecological, 2; obstetrical under professional care, mothers 29, infants 27; eye and ear, 2; skin, 3; throat and nose, 1; dental, 0; infectious diseases in the medical list, 15; surgical list, 0. Disposition: Removed to hospitals, 5; deaths, 6; discharged cured, 82; improved, 24; unimproved, 18; number of patients still remaining under care, 39.

Special Obstetrical Department.—Number of obstetricians in charge of cases, 1; students in attendance, 4; nurses in attendance, 3; patients carried over from last month, 1; new patients during month, 8; patients discharged, 8; visits by head obstetrician, 0; by attending obstetrician, 37; by students, 46; by nurses, 63; total number of visits for this department, 146.

Visits of Guild Nurses (all departments).—Number of visits with nursing treatment, 900; for professional supervision of convalescents, 335; total number of visits, 1,235; pay patients, 587; charity patients, 313; unrecorded patients, 335; cases reported to the Guild by 1 health physician, and 45 other physicians; graduate nurses 4, certified nurses 2, pupil nurses 4 on duty.

Dispensary Report.—Number of clinics held, 88; new patients, 154; old patients, 583; total number of patients treated during month, 737. Classification of clinics held: Surgical, 12; nose and throat, 7; eye and ear, 16; skin and genito-urinary, 7; medical, 11; prenatal, 3; lung, 7; dental, 0; nervous, 5; stomach, 4; children, 7; gynecological, 9.

Vaccination for the Prevention of Smallpox.—Smallpox has now made its appearance in Albany, three cases having been reported to the Bureau of Health recently. On account of the large number of persons, especially children, who have never been vaccinated, it is absolutely certain to spread. It is earnestly recommended that physicians throughout the city make every effort to bring about the vaccination of all unvaccinated persons in the families under their professional care.

The National Committee for Mental Hygiene has created a subcommittee on furnishing hospital units for nervous and mental disorders

to the United States Government, the project having been approved by Surgeon-General W. C. Gorgas of the U. S. Army.

This subcommittee, of which Dr. Pearce Bailey of New York is chairman, is authorized to secure the services of alienists and neurologists to be commissioned in the Officers' Reserve Corps, Medical Section, and to serve in the neuro-psychiatric units which are to be attached to the base and other hospitals of the military services of the United States. Further information will be given, and application forms sent to physicians qualified in this branch of medicine, on application by letter or in person to The National Committee for Mental Hygiene, 50 Union Square, New York City.

United States Civil Service Examination.—The United States Civil Service Commission announces an open competitive examination for physician, for men only. Present and future vacancies in the positions of physician in the Indian and Panama Canal Services, acting assistant surgeon in the Public Health Service, surgeon and assistant surgeon in the Coast and Geodetic Survey, and in positions requiring similar qualifications in other branches of the service will be filled from this examination, unless it is found in the interest of the service to fill any vacancy by reinstatement, transfer, or promotion.

Vacancies in the Public Health Service exist at the following places, with the salaries indicated:

Ashtabula, Ohio, $50 per month (3 or 4 hours a day).

Baltimore, Md., $150 per month for whole time; $50 per month for part time.

Cairo, Ill., $100 per month.

Duluth, Minn., $75 per month.

Eastport, Me., $100 per month.

Louisville, Ky., $100 per month.

Lewiston, N. Y., $150 per month (excursion season only, six months a year).

Newbern, N. C., $40 per month (3 or 4 hours a day).

Norfolk, Va., $125 per month.

Pittsburgh, Pa., $150 per month.

Stapleton, N. Y., $5 per diem (when actually employed).

Vineyard Haven, Mass., $4 per diem.

Entrance salaries in the Indian Service, where there are now a number of vacancies, range from $1,000 to $1,200 a year; in the Panama Canal Service, $1,800 a year; in the Public Health Service from $480 to $1,800 a year; Coast and Geodetic Survey, $1,200 a year, and those serving in the Philippines under the Coast and Geodetic Survey receive 20 per cent. additional.

Certification for filling vacancies in the Public Health Service will be made of the highest eligibles residing in the vicinity of the place at which

the appointee is to be employed, except that upon the request of the department certification will be made of the highest eligibles on the register for the entire country who have expressed willingness to accept appointment where the vacancy exists.

United States Civil Service Examination.—The United States Civil Service Commission announces an open competitive examination for anatomist, for both men and women, on July 11, 1917, at the places mentioned in the list printed hereon. A vacancy in the Army Medical Museum, Office of the Surgeon General, Washington, D. C., at $1,600 a year, and future vacancies requiring similar qualifications will be filled from this examination, unless it is found in the interest of the service to fill any vacancy by reinstatement, transfer, or promotion.

As an insufficient number of applications were filed for the examination of May 16, 1917, qualified persons are urged to apply.

Competitors will be examined in the following subjects, which will have the relative weights indicated:

Subjects.	*Weights.*
1. Anatomy (including technic of dissection) and pathogenicity of mosquitoes	25
2. Gross pathology (including preparation of museum specimens)	20
3. Bacteriology (including care and use of microscope)	20
4. Pathologic histology	15
5. Photomicrography	5
6. Training and experience	15
Total	100

As prerequisites for consideration for this position the appointee must have at least a collegiate degree, and have a thorough knowledge of the anatomy (and be experienced in the dissection) of disease-bearing mosquitoes of Southern United States, Panama, and the West Indies, and the Philippine Islands, and the relation of mosquitoes to the transmission of disease. A knowledge of pathology, bacteriology, and pathologic histology is also required, and the appointee must be capable of making photomicrographs, must understand microscopes, and be able to prepare, card, and keep in order museum specimens.

Applicants must have reached their twenty-first birthday on the date of the examination.

Applicants must be examined in the State or Territory in which they reside and have been actually domiciled in such State or Territory for at least one year previous to the examination, and must have the county officer's certificate in the application form executed.

Applicants must submit to the examiner on the day of the examination their photographs, taken within two years, securely pasted in the space provided on the admission cards sent them after their applications are filed. Tintypes or proofs will not be accepted.

Better Sanitation Needed in Rural Schools.—In the interests of efficiency and health there is increasing necessity for the application of scientific medical and sanitary knowledge to the administration of the public schools, in the opinion of the Public Health Service.

In general, the faults observed in rural schools, the annual report of the Service declares, are due to a lack of skilled advice, especially in regard to the location, construction and equipment of school buildings and disregard of sanitary principles governing water supplies, the disposal of sewage, ventilation, temperature, illumination, and the arrangement of school desks and blackboards. During the past fiscal year surveys have been made in rural districts of several States and many thousand school children have been examined. These examinations have included thorough testing of the eyes by competent oculists, tests of mental capacity, and the effect of sanitary environment on school progress, as well as inspections for the customary physical defects.

The conclusion is reached that there is great need for improvement in rural schools and that communities themselves will benefit if conditions are bettered, the schools serving as object lessons for surrounding sections. Conditions in country districts have been found below those in the cities and it is apparent that organized health work has largely been confined to the latter. Considered from a sanitary standpoint alone the Public Health Service is in favor of the consolidation of rural schools, since it must eventually result in the providing of better buildings and the organization of systems of efficient sanitary inspections.

Miners' Consumption.—A recent investigation of the causes and prevalence of miners' consumption among the metal miners in Southwestern Missouri forms the subject of Public Health Bulletin No. 85, issued by the U. S. Public Health Service.

Miners' consumption consists essentially of a mechanical injury to the lungs due to the prolonged inhalation of hard rock dust. It has been recognized as being prevalent in some American mining districts, particularly in the Joplin zinc and lead districts. It was to determine its actual prevalence, and its relationship to pulmonary tuberculosis that the investigation was undertaken.

In the Joplin district certain mines are known as "sheet-ground" mines, in which the ore is found imbedded in an exceedingly hard flint. In drilling and other mining operations this flint rock is finely pulverized. The minute rock dust particles enter the lungs, in the process of natural breathing, and by their irritating action cause the formation of fibrous, or

scar like, tissue. The effect of this is to lessen the lungs' ability to expand and contract, with the result that the victim first notices that he is becoming short winded. With continued exposure to this silica containing dust, the difficulty of breathing increases, until the miner is no longer able to perform active physical labor. It was found also that men with dust-injured lungs were especially liable to develop tuberculosis, the dust irritation lessening the ordinary resisting powers of the lungs. While miners' consumption is not in itself infectious or contagious, it predisposes to tuberculosis. The greater the amount of rock dust injury the greater the liability to tuberculosis; the far advanced cases of miners' consumption practically all become tuberculous before their death.

Under an entirely voluntary system 720 miners presented themselves for physical examination, of whom 433 were found to have had their lungs injured by the inhalation of rock dust; of these 103 were also tuberculous, the amount of tuberculosis infection being greatest among the advanced cases of the rock dust disease.

Five years' steady work with exposure to flint dust is fairly certain to find the miner in at least the first stages of miners' consumption. If the miner continues his work after being affected, death usually results within ten years from the time that exposure to flint dust commenced. Poor housing conditions were found to be prevalent and to add to the liability of tuberculous infection. Apparently tuberculosis is now occurring at an earlier stage of miners' consumption than was formerly the case. The report lays emphasis on the necessity of preventing the spread of tuberculosis through these cases, especially among miners' children. The fact that miners' consumption is a forerunner of tuberculosis necessitates that it be treated with the same hygienic precautions as is the latter disease.

The report concludes that aside from the hygienic supervision of underground working places, the education of the miner against the spread of infection and supervision of miners' children, especially those of consumptive parents, are matters of vital importance.

Tetanus in the War.—In the early period of the European War, many cases of lockjaw or tetanus developed in the wounded of the allied armies. This very fatal disease is caused by a bacillus which is often found in garden soil, street dust, and in the earth in the vicinity of stables. In order to cause tetanus, the germ must lodge in a wound and find suitable conditions for its growth. Injuries in which clothing or foreign matter is forced widely or deeply into the tissues are the most dangerous because the tetanus germ can only flourish in places into which oxygen cannot penetrate, just as toadstools grow best when sheltered from the sun.

As soon as the stress of war conditions permitted, all badly wounded men were immediately given injections of the serum against tetanus as a routine procedure to prevent this dreaded disease. The use of the antitoxin caused a prompt reduction in the number of cases and the control

of tetanus in the armies can be justly cited as one of the ways in which science is helping valor to win the war.

This subject is of especial interest at the present season because Fourth of July injuries, especially from blank cartridges, are apt to be followed by lockjaw if they are not promptly and properly treated. The general adoption of the "Sane Fourth" has done much to reduce the number of these accidents and suitable medical attention has prevented the development of tetanus in almost every instance.

In view of the serious results which may occur, it seems wise to again warn all parents that wounds from toy pistols, firecrackers, and firearms are always dangerous and all persons hurt in this way, even though the injury appears trivial, should be taken at once to a competent physician for treatment, especially to ascertain if the serum should be injected.

Medical Service of the Army.—The following named alumni in addition to those recorded in the Annals of June have received commissions:

Dr. Max A. Almy ('12), Dr. James N. Vander Veer ('03), Dr. Clarence E. Mullens ('12), Dr. Howard E. Lomax ('92), captains; Dr. Garrett W. Timmers ('97), Dr. Charles W. Woodall ('13), lieutenants; Dr. Henry K. Tebbutt, Jr. ('16), first lieutenant.

Captains James N. Vander Veer and Clarence A. Mullens and Lieut. Joseph Lanahan have been ordered to Fort Benjamin Harrison, near Indianapolis, for training in the medical officers' camp.

Dr. Henry K. Tebbutt, Jr., has been appointed as first lieutenant in the New York Medical Corps assigned to the First New York Cavalry. Lieutenant Tebbutt was a member of "B" Troop for six years and accompanied it to the border last summer. He has also served as interne in the Albany Hospital.

Dr. Max A. Almy, of Rochester, N. Y., has been named as captain in the Army Reserve.

Personal.—Dr. Willard E. Wheelock (A. M. C. '14), who has recently finished his service as interne at St. Peter's Hospital, engages in general practice in Rockville Center, L. I. Dr. Wheelock is associated with Dr. Hartley E. Boorom, also an alumnus of the Albany Medical College of the class of 1908.

—Dr. Howard F. Bonesteel (A. M. C. '89), is practicing at Indian Lake, N. Y., in the Adirondacks. Dr. Bonesteel is also proprietor of the "Indian Lake House," a summer resort in the heart of the mountains, established under the best conditions and offering many inducements to those in search of health and recreation.

—Dr. Andrew MacFarlane (A. M. C. '87), publishes a paper on "Reduction of Blood Pressure by the Removal of an Adrenal Gland" in the *New York Medical Journal* of June 2, 1917.

—Dr. C. Harry Allen (A. M. C. '99), has opened an office at 61 Columbia St., Albany, N. Y. Dr. Allen will practice chiropractic.

—Dr. Charles G. Briggs (A. M. C. '89), was one of six American physicians of an ambulance unit of the Red Cross to be decorated with the war cross of France. In explaining the reason for this high honor the citation says:

"In a situation most perilous their courage and devotion did not falter for an instant."

The crosses were bestowed at a special ceremony held at the front, General Dauvin affixing the decorations, and, at the end, receiving a surprise in the way of an American college yell.

Married.—Dr. James Manning Dunn (A. M. C. '15), and Miss Alice Marie Ganser, both of Schenectady, were married on June 6, 1917. Dr. Dunn is in practice at 816 State St., Schenectady, N. Y.

Died.—Dr. Adelbert E. Moody (A. M. C. '85), died at St. Regis Falls, N. Y., April 22, 1917.

—Dr. Thomas J. Lally (A. M. C. '99), died at his home in Waterbury, Conn., April 19, 1917, aged 43 years.

—Dr. Everal C. Haviland (A. M. C. '04), died at his home in Keene, N. H., May 27, 1917.

In Memoriam

Adelbert E. Moody, M. D.

Adelbert E. Moody was born in the village of Saranac Lake, June 11, 1857. His early life was spent in the grammar and high school of that village. After graduating from the high school and later while attending the Albany Medical College his services were eagerly sought as a guide on account of his intimate knowledge of the Adirondacks, his skilled marksmanship and his ability as a fisherman. He graduated from the Albany Medical College in 1885. While in College he was associated with Dr. John Swinburne in the Swinburne Dispensary. In 1886 he was united in marriage to Miss Jessie Churchill of Mooers, Clinton County, and resided there for a term of years where he practiced his profession. In 1898 he located at Dickinson Center, Franklin County, where he built up a large practice, and in 1909 he removed to St. Regis Falls. In 1899 he was elected coroner on the Republican ticket, which office he held for twelve years, performing the duties of the office to the satisfaction of all. In 1905 he took a post-graduate course in the New York Homeopathic Medical College and Hospital. Dr. Moody was a successful practitioner and gained considerable prominence as a surgeon. He was a member of

the Medical Society of the State of New York, and an ex-president of the Medical Society of the County of Franklin. For the past few years he has been associated with F. W. Aldrich in conducting a drug store in the village of St. Regis Falls. In February, 1917, after the death of Dr. Noble at Bloomingdale, N. Y., Dr. Moody went to Bloomingdale, where he took up the practice of the late Dr. Noble, and arranged to move his family early in the summer. Two cases of typhoid fever developed in the same house where the Doctor was boarding, with the result that the Doctor also contracted the disease. Upon his request he was removed to the Cornwall General Hospital, Cornwall, Ont., where his condition seemed fairly satisfactory until a serious hemorrhage of the bowels occurred. His two sons were hastened in a car at night to the railroad bridge opposite Cornwall where they were met with a hand car and arrived at the hospital to be at his bedside just before expiring, April 22, 1917.

As a man he was held in high esteem by all who knew him. He was kind, accommodating, conscientious and stood for the things he considered right and for the best interests of the people generally. The deceased is survived by his wife and two sons, Ralph and Richard, and three brothers, A. B. Moody, of Tupper Lake, and C. E. and V. D. Moody and a sister, Mrs. W. H. Oldfield, of Saranac Lake, and other more distant relatives to whom the heartfelt sympathy of a host of friends goes out in an abundant measure.

W. A. Wardner.

Everal C. Haviland, M. D.

Dr. Everal C. Haviland, a well-known physician of Keene, N. H., died at his home in that city on May 27, 1917, in his fortieth year.

Dr. Haviland was born in Johnsville, N. Y., October 11, 1877, and was the son of James L. and Phoebe Sherman Haviland. He was educated in the High School at Walcott, N. Y., and graduated from the Albany Medical College in the class of 1904. After graduation he received appointment as first assistant physician at the Brattleboro Retreat in Vermont, and remained there six years. In the autumn of 1910 he entered general practice in Keene. He was city physician for two years, 1914 and 1915, a member of the board of pension examiners; he was a member and secretary of the Cheshire County Medical Society for six years, and also had membership in the Medical Society of the State of New Hampshire and in the American Medical Association. He was an attendant of the First Congregational Church and a member of the Country Club.

Dr. Haviland married Miss Ethel Randall, of Brattleboro, Vt., on October 5, 1909. Mrs. Haviland and a son, aged four years, and a sister, Mrs. Minnie Johnson, of Hudson, Mass., survive.

Military Medicine

MILITARY INSTRUCTION AND THE "ALBANY IDEA."

(*Continued from June* ANNALS, *p. 300.*)

The admirable work done by the Clinical Club in Albany in military preparedness has been demonstrated by an important pamphlet recently issued. As the scheme is of such far-reaching value, it has been thought wise to reprint it in thhe ANNALS so that it may receive a larger circulation than the privately distributed pamphlet, and may also have permanent record.

The following named physicians are the members of the Clinical Club who have accomplished this large task: Dr. ARTHUR J. BEDELL, Dr. FREDERICK C. CONWAY, Dr. ERASTUS CORNING, Dr. JOSEPH A. COX, Dr. MALCOLM DOUGLAS, Dr. EUGENE E. HINMAN, Dr. ELLIS KELLERT, Dr. JOSEPH A. LANAHAN, Dr. JOSEPH P. O'BRIEN, Dr. DANIEL V. O'LEARY, Dr. JAMES F. ROONEY, Dr. HARRY RULISON, Dr. JAMES N. VANDER VEER.

2. *Selection of Sites for Receiving Stations:* A—Accessibility to main traffic arteries of city.
   B—Adjacent open space to avoid congestion.
   C—Utilize freight sidings with high platforms between tracks whenever possible.
   D—Indicate sites selected, trolley lines, main routes of travel and routes for transfer of wounded on map using conventional signs.
3. *Selection of Shelter Sheds and Buildings for immediate distribution of food, and for Dressing Stations:* A—*Location*—Adjacent to Receiving Station.
   B—Size—Estimated number of wounded to be received at each station.
   C—Availability—Present use. Would all or only part of building be needed? Necessary changes, if any.
   D—Equipment—Water, heat, light, toilet facilities, etc. (See section on "Housings.")
   E—*New Construction.* (If no nearby building is available). Sheds tents, portable buildings.
4. *Litters:* A—*Number Required.* Estimate 10 per cent. of total probable number of wounded.
   B—*Specifications.* Standard army litter. Dimensions. Material. Number of poles. Kind of wood for poles obtainable. Is sufficient material on hand. Price.
   C—*Construction.* Names and address of factories able to make up raw material. Time required for emergency order. Cost.
5. *Litter Bearers:* A—*Number required.*
   B—*Distribution*—Based on 6.
   C—*Personnel.* What group or groups of men would serve?

6. *Approximate number of wounded to be delivered at each station:*
A—Dependent on trackage capacity of carriers, size of adjacent open space, available buildings, and transportation facilities in city.
Transportation of Wounded within the City of.....

Degrees of Disability: Among a large number of wounded received from the front many will be so seriously injured as to require litter transportation to hospital; others, while unable to walk, can travel safely in vehicles which permit of a sitting position only, still others will be able to walk from the detraining point to hospital.

Sources of Ambulance Supply: In preparation for such an emergency there should be listed the number of automobiles and motor vehicles, if the city is a large one, or of motor and horse-drawn vehicles, if the wounded is received in a small place. This list, which should include the taxicab companies, the large business houses which use motor vehicles, moving vans, etc., private automobiles and trolley cars, can well be compiled by inquiry among such companies as well as at the office of the State automobile licensing bureau, garages and automobile club.

Assignment of Ambulances: Ambulances should be ordered to report to the various receiving points, assigning them according to the estimated number of trains expected at the several points. Taxicabs and ordinary automobiles will serve for those who are able to ride in a sitting position. The delivery vehicles, moving vans, local hospital ambulances and police patrol wagons or machines can be used for those needing litter transportation.

Trolley cars may be previously arranged on tracks of the company adjacent to the detraining points, alternating those cars which can be used for sitting-up cases only with those into which litters can be carried and indicating all cars on the outside as to what class of patients they are intended for, thus avoiding confusion incident to bearers having to inquire of officers.

Transportation Routes through City: Inasmuch as the transfer of the wounded will demand the use of a large number of ambulances and clear lines of communication to the various hospitals, certain of the city streets should be closed to civilian traffic for a period long enough to care for the injured. Such streets should be chosen as will give the most direct routes to the hospitals, having in mind also that many will walk, and hence hilly and ill-paved streets should be avoided.

Return of Litters: When litter patients are left at hospitals each ambulance will return same litters or an equal number of litters to the detraining point. This will avoid the necessity for having such a large number of litters at the receiving points.

Cleaning Ambulances: A sufficient force of men should be kept at each detraining point to inspect each ambulance upon its return from a trip to hospital, and where it has been soiled by a previous patient it should be cleansed before again used.

Hospitals.

The information required below can be obtained from superintendents of hospitals, nurse in charge of operating rooms, hospital reports, etc.:

General description of each, location, surroundings.

Accessibility to railroads, water routes, trolley lines, etc.

Equipment for special work.

Number of beds.

Possible full capacity.

Is X-Ray equipment modern and adequate?

Number of operating rooms.

Full possible number of major operations that could be done in relation to sterilizing capacity of hospital.

Number of rooms that could be utilized for operating rooms. (In estimating this it should be borne in mind that rooms in out-patient department might be utilized.)

Number of nurses that would be required.

Kitchen capacity in relation to full capacity of hospital.

Laundry capacity.

Character of lighting, electricity, gas, is hospital piped for gas, is electricity obtained from own plant or from some other source?

Elevators.

Number of ambulances, types (motor or horse drawn).

Capacity of ambulances (patients sitting or lying).

Refrigeration—Has hospital its own ice plant?

Ward carriages, number in hospital and number required for full possible capacity.

Does hospital possess its general and special operating instruments?

Names and addresses of local physicians, age, hospital attachments, special work followed by each.

General Hospital Supplies.

The information required below can be obtained from local wholesale coal distributors, heads of factories and stores or departments therein, government reports on distilleries or owners of distilleries, superintendents of hospitals, operating room nurses, hospital reports, etc.

Coal.

A—Average amount consumed per hospital per annum.

B—Total average daily quantity in city stored by dealers, carriers, etc.

C—Sources of supply.

D—Routes of transportation over which it is brought to city.

E—Bottoms, viz., number of cars and boats available for transportation.

Gauze, muslin, rubber-sheeting, adhesive plaster, pins (common, safety).

A—Average amount carried in stock in stores in city.

B—Names and addresses of stores.

C—Names of factories located in city manufacturing same and capacity of factories.

D—Names and addresses of factories whence local supply is drawn.

E—Amount carried by local hospitals.

Alcohol.

A—Names and addresses of local distillers of alcohol.

B—Average output of local distilleries per annum.

C—Sources of local supply. (Names and addresses.)

D—Average amount in city.

Whiskey.

A—Average amount in city.

B—Names and addresses of local distillers and average output of each distillery per annum.

C—Names and addresses of local wholesale liquor dealers and amounts carried by each.

D—Sources of local supply.

Drugs.

A—Names and addresses of local wholesale houses.

B—Average amount of following drugs carried in stock by wholesale drug houses, hospitals, small drug stores, physicians: ether, chloroform, nitrous oxide, ethyl chloride, morphine, strychnine, boric acid, carbolic acid, alum, aspirin, atropine, caffeine, calomel, chloral, cocaine, codeine, copaiba, digitalis and preparations thereof, emetine, laudanum, iodine, iodoform, lysol, magnesium sulp., mercury bichlorid., castor oil, opium, quinine, oxalic acid, zinc sulphate, potassium permanganate, cathartic pills or tablets.

C—Names and addresses of local drug manufacturers, and capacity of factories for producing above-named drugs.

D—Names and addresses of drug manufacturers whence local supply is drawn.

Cotton.

A—Average amount in city, viz., as carried by retail dealers, local dry-goods houses, wholesale drug houses and hospitals. Specify amounts carried by each.

B—Local cotton mills and names and addresses.

C—Names and addresses of sources of local supply for raw and finished product.

Sewing Machines.

A—Number on hand with local dealers.

B—Local factories.

C—Names and addresses of sources of local supply.

Estimate of persons needed to make sheets, pillow cases, pledgets, etc., etc., for each hospital when hospital would be crowded to full possible capacity.

Glassware, dishes, knives, forks, spoons, etc., amounts obtainable in city. Names and addresses of sources of local supply.

A—Number of incandescent lamps in city.

B—Local factories for same—names and addresses.

C—Names and addresses of sources of local supply.

D—Gas, natural and artificial.

E—Possible use of acetylene, amount of calcium carbide procurable.

F—Kerosene lamps.

G—Amount of kerosene procurable and sources of local supply.

H—Candles.

Ice.

A—Amount procurable and sources of local supply.

B—Natural and artificial ice plants in city and neighboring localities.

C—Capacity of same.

D—Amount of ice needed per diem in hospitals when crowded to full possible capacity.

Operating Room Supplies.

Operating Tables.

A—Number needed for each hospital when crowded to full possible capacity.

B—Number procurable and types of tables.

Instruments.

A—Number of general operating sets in city, including bone instruments, hypodermic syringes, torniquets, etc.

B—By whom held. (Names and addresses.)

C—Local instrument makers and full capacity of factories.

D—Sources of supply of raw materials.

Suture materials, catgut, silkworm gut, silk, kangaroo tendon, horsehair, common thread, silver and copper wire.

A—Sources of local supply, names and addresses of local wholesale dealers and factories, amounts carried by each.

B—Average amounts carried by local hospitals.

Antiseptic gauze.

A—Crude materials needed for making same.

B—Amounts available.

Rubber Gloves.

A—Number of pairs in city and by whom held, wholesale dealers, factories, hospitals.

B—Sources of local supply.

Miscellaneous. (Amount in city—where obtainable.)

A—Towelling. B—Rubber tissues. C—Soap. D—Rubber tubing for drainage. E—Catheters.

Eye and Ear Injuries.

Specifications same as for General Hospital Supplies.

See "Medical and Surgical Supplies,' "Housing," "Beds and Bedding," "Nursing," etc., with addition of following suggestions:

Building.

Refrigerating plant especially needed for ice in eye cases, or provision for extra supply.

Water Supply.

Still for distilling as needed in eyes.

Lighting.

Dark rooms for more serious eye cases.

Operating Rooms.

Dark rooms for eye examination-lights, optician's room, sound proof room for testing ears, surrounding grounds considered as to shade and exercise for eyes.

Surgical Equipment.

Accessories, spectacles, glass eyes, artificial ears, paraffin.

Instruments.

Special eye, special ear-brain.

Dressings.

Special eye-pads-bandages: Roller, knitted, plain black, one eye, both eyes.

Gauze packing.

Isinglass plaster.

Separate ward trays: Eye; ear.

Examination equipment eye—

Test cards — distance, near.

Perimeter.

Ophthalmoscopes — plain electric.

Retinoscopes — asbestos chimneys.

Frosted electric globes.

Test lenses.

Transilluminators.

Lights.

Ear specula—head mirrors, applicators; tongue depressors: metal, wood; nose specula; tuning forks, etc.; rotation chairs; syringes, douche bags, pus basins.

Nursing.

Number of and Types of Training.

1. Graduate registered nurses.
2. Certified nurses.

3. Domestic nurses.
4. Masseurs.
5. Women who have taken First Aid Instruction under Red Cross.
6. Graduate nurses who have married. Estimate of number of nurses graduating yearly.
7. Number of midwives.

Beds and Bedding.

Number of dealers in town carrying beds, the number of second-hand dealers, their location and amount of stock carried by each.

Number of double beds, number of single beds, number of cots, number of convertible couches.

Number of mattresses carried in stock, number of double, number of single, number of mattress workers in locality.

Number of dealers carrying ticking, amount of ticking carried on hand.

Amount of straw on hand, amount available.

Number of pillows, sheets, pillow slips.

Amount of muslin carried on hand.

Source of supply of beds and bedding, how soon could a rush order be filled.

Number of mattress workers in Albany.

Blankets.

Number in stock with local dealers, sources from which local supply is drawn, names and addresses.

Local factories, names and addresses.

Maximum output when local factories are run to full possible capacity.

Sources of supply whence raw materials for local factories are drawn.

Food.

Amount Carried on Hand by Local Dealers: (Sources of Supply.)

Meat—Fresh, canned, corned, sausage, smoked.
Fish—Fresh, dried, smoked, canned.
Vegetables—Fresh, canned.
Coffee—Bean, condensed, chicory.
Tea—Leaves, compressed.
Sugar—Loaf, granulated, powdered, brown.
Salt.
Flour.
Tobacco—Leaf, cigars, cigarettes, chewing, smoking.
Pipes—Briar, clay.
Butter—Fresh, cold storage, oleomargarine.
Eggs—Fresh, cold storage.

(*To be continued.*)

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The attention of physicians is called to the advantages which this institution offers in methods of laboratory diagnosis. Many physicians, through lack of time, technical training, or proper laboratory equipment, find it difficult to utilize the many methods of microscopical and chemical examination, so essential to proper diagnosis. To the Alumni of the Albany Medical School, and to physicians generally, the Bender Laboratory offers at a moderate cost, facilities for such examinations. Animal inoculation, chemical, bacteriological and histological examinations will be made as the case requires.

The following directions are appended for the benefit of those who may forward material:

All specimens should be accompanied by a brief note of the clinical condition and a special reference to the character of the examination desired. Name and address of person to whom report is to be sent should be clearly indicated.

1.—Pathological material from either operation or autopsy should be wrapped in moist gauze surrounded by oiled paper or rubber protective. When it is not possible for material to reach the laboratory within twenty-four hours, it should be placed in alcohol (80%) or formalin solution (10%). Small fragments of tissue and the material from uterine curettage should always be so preserved.

2.—Sputum should be sent in clean wide-mouth bottles; the ordinary vaseline bottle answers all purposes. The same bottle is suitable for faeces. Urine should be in clean bottles containing not less than six ounces.

3.—Exudates and other material requiring a bacteriological examination by culture should be placed in containers previously sterilized by heat (not chemical disinfectants).

4.—Outfits for special purposes, as diphtheria cultures, Widal reaction, vaccines, Wassermann reactions, etc., will be sent upon application.

5.—Tissues and fluids for animal inoculation, e. g., hydrophobia, tetanus, tuberculosis, etc., are best sent packed in ice. In cases of suspected hydrophobia it is advisable to send the entire animal without injury to the brain or cord.

6.—Haematological examinations at the patient's home will be made by appointment.

7.—Milk and water for bacteriological examination should be sent in sterile glass containers, packed in ice. Special instructions for the collection of samples may be had upon application.

8.—Members of the staff are at all times available for the purpose of conducting post-mortem examinations.

9.—The fee for complete haematological examination at patient's home is $10.00; for post-mortem examination, according to the nature of the case and the time consumed; for the Wassermann reaction, $10.00; all other examinations, a uniform fee of $5.00. A special contract may be made for weekly or monthly examinations of milk. In the case of patients who cannot pay the full amount, these fees will be reduced.

Reports will be sent by telegraph if requested.

Letters and specimens should be addressed to

THE BENDER HYGIENIC LABORATORY,
LAKE AVENUE, ALBANY, N. Y.

THE BRANDOW PRINTING COMPANY, ALBANY, N. Y.

ALBANY HOSPITAL

New Scotland Avenue

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